



UNITED STATES PATENT AND TRADEMARK OFFICE



UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/507,505	09/13/2004	Takahisa Kaneko	121107	6446

25944 7590 09/17/2007
OLIFF & BERRIDGE, PLC
P.O. BOX 19928
ALEXANDRIA, VA 22320

EXAMINER

LEYSON, JOSEPH S

ART UNIT	PAPER NUMBER
----------	--------------

1722

MAIL DATE	DELIVERY MODE
-----------	---------------

09/17/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/507,505	KANEKO ET AL.	
	Examiner	Art Unit	
	Joseph Leyson	1722	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 July 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-12, 14-16 and 18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-12, 14-16 and 18 is/are rejected.
- 7) ☒ Claim(s) 12 and 14-16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claims 12 and 14-16 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim.

Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

The subject matter of claims 12 and 14-16 is already included in claim 11.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 9-12, 14-16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bagley (U.S. Patent 3,790,654) in view of Inoue et al. (U.S. Patent

Art Unit: 1722

4,834,640), Comstock (U.S. Patent 1,973,428), and Cocchetto et al. (U.S. Patent 5,219,509).

Bagley (U.S. Patent 3,790,654) discloses a die for forming a honeycomb body, the die includes plate 12 having a predetermined size and provided with a plurality of cell blocks 28 defined by a plurality of groovy slits 24 on a front face thereof and a plurality of back holes (input ports) 18 on a back face thereof, each hole 18 being communicatively connected with a predetermined slit 24, the plate 12 being made of tungsten carbide (i.e., col. 5, lines 35-45), and a slit height (cell block height) of 0.15 inches (3.81 mm) (col. 6, lines 14-17). Note that figure 4 of Bagley (U.S. Patent 3,790,654) shows and discloses (i.e., col. 6, lines 12-25) that the back holes 18 intersect the groovy slits 24 adjacent every other intersection of the slits 24 (which is similar to fig. 2 of the instant disclosure). A holding plate 14, 32 fixes a profile and size of the honeycomb body extruded from the die. The die plate 12 and the holding plate 14, 32 can be made of cemented carbides (i.e., tungsten carbide; col. 5, lines 35-41).

Bagley (U.S. Patent 3,790,654) does not disclose a connection area ratio of the back hole and the cell block being 35 to 65%. However, Bagley (U.S. Patent 3,790,654) does disclose that the die construction should provide the required strength and rigidity to withstand extrusion pressures without failure or deleterious deformation (i.e., col. 2, lines 65-70), that dimensions of the slits, back holes, and cell blocks provide flow control of the material to be extruded (i.e., flow resistance, lateral flow, amount of flow) (i.e., col. 2, lines 45-65; col. 3, line 72, to col. 4, line 20; col. 5, lines 60-68), that the intersection of the back holes 18 with the slits 24 and cell blocks 28 is relatively large to provide for

Art Unit: 1722

lateral flow so as to completely fill the lateral extent of the slots prior to discharge (col. 3, line 72 to col. 4, line 7) , and that dimensions of the slits, back holes, and cell blocks will vary with the physical properties of the material to be extruded (col. 6, lines 3-11).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the die of Bagley (U.S. Patent 3,790,654) with a connection area ratio of the back hole and the cell block of 35 to 65% because such a dimensional relationship would have been found due to routine experimentation in finding the operable or optimum dimensions of the die in view of the teachings of Bagley (U.S. Patent 3,790,654) to control the flow of the material to be extruded in view of the physical properties of the material while still maintaining the required strength and rigidity of the die to withstand extrusion pressures without failure or deleterious deformation (i.e., to prevent breakage of the die when used). Furthermore, such a dimensional relationship would still enable the die of Bagley (U.S. Patent 3,790,654) to form a honeycomb body. Where the only difference between the prior art and the claims is a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device is not patentably distinct from the prior art device, In Gardner v. TEC Systems, Inc., 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984).

Bagley (U.S. Patent 3,790,654) does not further disclose a back holding plate; or the die, holding plate and back holding being made of cemented carbide, as recited by the instant claims.

Inoue et al. (U.S. Patent 4,834,640) disclose a die for forming a honeycomb body (i.e., fig. 1) and that cemented carbide such as tungsten carbide is well known in the art as a high wear resistance material (i.e., abstract; col. 1, lines 44-63). Inoue et al. (U.S. Patent 4,834,640) further disclose a jig including a die 1 and a holding plate 2 fixing a profile and size of the honeycomb body extruded from the die for forming the honeycomb body. The portions of holding plate 2 which contact the extrusion material are made of cemented carbide such as tungsten carbide for high wear resistance (i.e., col. 1, lines 48-63; col. 2, lines 35-54).

Comstock (U.S. Patent 1,973,428) discloses a cemented carbide material being formed by compacting, followed by sintering at high temperature, metal carbide powder of transition metal element series, such as tungsten carbide, tantalum carbide (TaC), and titanium carbide (TiC) with an iron group metal binder having toughness (cobalt, iron or nickel) (i.e., p. 1, lines 33-96).

Cocchetto et al. (U.S. Patent 5,219,509) disclose a jig for forming a honeycomb body including a die 22, a holding plate 24, 25 fixing a profile and size of the honeycomb body extruded from the die for forming the honeycomb body and a back holding plate 26, 28 controlling an amount of an extrusion material flowing into the back holes uniformly (i.e., col. 5, lines 31-61; col. 8, line 64, to col. 9, line 23).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to further modify the apparatus of Bagley (U.S. Patent 3,790,654) with a back holding plate because such a modification would control the amount of extrusion material flowing into the back holes as disclosed by Cocchetto et al. (U.S.

Art Unit: 1722

Patent 5,219,509), and to further modify the die plate, the holding plate and the back holding plate to be made with the cemented carbide material of Comstock (U.S. Patent 1,973,428) because Bagley (U.S. Patent 3,790,654) discloses that a die plate and a holding plate can be made of cemented carbides (i.e., tungsten carbide), because Inoue et al. (U.S. Patent 4,834,640) discloses that a holding plate can be made of cemented carbides, and/or because cemented carbides are well known materials in the art for providing high wear resistance, as disclosed by Inoue et al. (U.S. Patent 4,834,640) who teach that portions which contact extrusion material can be made of cemented carbide for high wear resistance.

As to the limitation of "for a raw material containing SiC", such a limitation relates to the intended use of the claimed apparatus and has no patentable weight. A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. Ex parte Masham, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987); see MPEP 2114.

"Expressions relating the apparatus to contents thereof during an intended operation are of no significance in determining patentability of the apparatus claim." Ex parte Thibault, 164 USPQ 666, 667 (Bd. App. 1969). Furthermore, "[i]nclusion of material or article worked upon by a structure being claimed does not impart patentability to the claims." In re Young, 75 F.2d 996, 25 USPQ 69 (CCPA 1935) (as restated in In re Otto, 312 F.2d 937, 136 USPQ 458, 459 (CCPA 1963)). See MPEP 2115.

Art Unit: 1722

5. Claims 9-12, 14-16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese reference (2000-326318) in view of Bagley (U.S. Patent 3,790,654), Inoue et al. (U.S. Patent 4,834,640) and Cocchetto et al. (U.S. Patent 5,219,509).

Japanese reference (2000-326318) disclose a die for forming a honeycomb body including a plate having a predetermined size and provided with a plurality of cell blocks (see figures) defined by a plurality of groovy slits 15 on a front face thereof, a plurality of back holes (input ports) 131 on a back face thereof, each hole 131 being communicatively connected with a predetermined slit 15, and the plate being made of a cemented carbide material having wear resistance, the cemented carbide material being formed by compacting, followed by sintering at high temperature, metal carbide powder of transition metal element series, such as TiC and TaC, with an iron group metal binder having toughness (i.e., col. 8, paragraphs 35-37). However, Japanese reference (2000-326318) does not disclose a connection area ratio of the back hole and the cell block being 35 to 65%, a cell block height of the die being 2 to 5 mm, a holding plate or a back holding plate.

Bagley (U.S. Patent 3,790,654) discloses a die for forming a honeycomb body, the die includes plate 12 having a predetermined size and provided with a plurality of cell blocks 28 defined by a plurality of groovy slits 24 on a front face thereof and a plurality of back holes 18 on a back face thereof, each hole 18 being communicatively connected with a predetermined slit 24, a holding plate 14, 32 for fixing a profile and size of the honeycomb body extruded from the die, the die plate 12 and the holding

Art Unit: 1722

plate 14, 32 can be made of cemented carbides (i.e., tungsten carbide; col. 5, lines 35-45), and a slit height (cell block height) of 0.15 in (3.81 mm) (col. 6, lines 14-17). Note that figure 4 of Bagley (U.S. Patent 3,790,654) shows and discloses (i.e., col. 6, lines 12-25) that the back holes 18 intersect the groovy slits 24 adjacent every other intersection of the slits 24 (which is similar to fig. 2 of the instant disclosure). Bagley (U.S. Patent 3,790,654) further discloses that die construction should provide the required strength and rigidity to withstand extrusion pressures without failure or deleterious deformation (i.e., col. 2, lines 65-70), that dimensions of the slits, back holes, and cell blocks provide flow control of the material to be extruded (i.e., flow resistance, lateral flow, amount of flow) (i.e., col. 2, lines 45-65; col. 3, line 72, to col. 4, line 20; col. 5, lines 60-68), that the intersection of the back holes 18 with the slits 24 and cell blocks 28 is relatively large to provide for lateral flow so as to completely fill the lateral extent of the slots prior to discharge (col. 3, line 72 to col. 4, line 7) , and that dimensions of the slits, back holes, and cell blocks will vary with the physical properties of the material to be extruded (col. 6, lines 3-11).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the die of Japanese reference (2000-326318) with a connection area ratio of the back hole and the cell block of 35 to 65% because such a dimensional relationship would have been found due to routine experimentation in finding the operable or optimum dimensions of the die in view of the teachings of Bagley (U.S. Patent 3,790,654) to control the flow of the material to be extruded in view of the physical properties of the material while still maintaining the required strength and

Art Unit: 1722

rigidity of the die to withstand extrusion pressures without failure or deleterious deformation (i.e., to prevent breakage of the die when used). Furthermore, such a dimensional relationship would still enable the die of Japanese reference (2000-326318) to form a honeycomb body. Where the only difference between the prior art and the claims is a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device is not patentably distinct from the prior art device, In Gardner v. TEC Systems, Inc., 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984). It would have been further obvious to an artisan of ordinary skill to modify the cell block height (slit height) of the die of Japanese reference (2000-326318) to be 3.81 mm because such a height is well known and conventional in the art as disclosed by Bagley (U.S. Patent 3,790,654) and would provide a configuration for the cell block height known in the art to be operable.

Inoue et al. (U.S. Patent 4,834,640) disclose a jig including a die 1 and a holding plate 2 fixing a profile and size of the honeycomb body extruded from the die for forming the honeycomb body. The portions of holding plate 2 which contact the extrusion material are made of cemented carbide such as tungsten carbide for high wear resistance (i.e., col. 1, lines 48-63); col. 2, lines 35-54).

Cocchetto et al. (U.S. Patent 5,219,509) disclose a jig for forming a honeycomb body including a die 22, a holding plate 24, 25 fixing a profile and size of the honeycomb body extruded from the die for forming the honeycomb body and a back

holding plate 26, 28 controlling an amount of an extrusion material flowing into the back holes uniformly (i.e., col. 5, lines 31-61; col. 8, line 64, to col. 9, line 23).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to further modify the die with a holding plate made of cemented carbide because such holding plates are well known and conventional in the art for fixing a profile and size of the honeycomb body extruded from the die and for high wear resistance, as disclosed by Inoue et al. (U.S. Patent 4,834,640) and Bagley (U.S. Patent 3,790,654), and to further modify the die with a back holding plate because such a modification would control the amount of extrusion material flowing into the back holes as disclosed by Cocchetto et al. (U.S. Patent 5,219,509). Furthermore, it would have been further obvious to an artisan of ordinary skill to make the portions of the holding plate and the back holding plate which contact the extrusion material to be made from the specific cemented carbide materials disclosed by Japanese reference (2000-326318) because Bagley (U.S. Patent 3,790,654) discloses that a die plate and a holding plate can be made of cemented carbides (i.e., tungsten carbide), because Inoue et al. (U.S. Patent 4,834,640) discloses that a holding plate can be made of cemented carbides, and/or because cemented carbides are well known materials in the art for providing high wear resistance, as disclosed by Inoue et al. (U.S. Patent 4,834,640) who teach that portions which contact extrusion material can be made of cemented carbide for high wear resistance.

As to the limitation of "for a raw material containing SiC", such a limitation relates to the intended use of the claimed apparatus and has no patentable weight. A claim

Art Unit: 1722

containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. Ex parte Masham, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987); see MPEP 2114.

"Expressions relating the apparatus to contents thereof during an intended operation are of no significance in determining patentability of the apparatus claim." Ex parte Thibault, 164 USPQ 666, 667 (Bd. App. 1969). Furthermore, "[i]nclusion of material or article worked upon by a structure being claimed does not impart patentability to the claims." In re Young, 75 F.2d 996, 25 USPQ 69 (CCPA 1935) (as restated in In re Otto, 312 F.2d 937, 136 USPQ 458, 459 (CCPA 1963)). See MPEP 2115.

Double Patenting

6. Applicant is advised that should claims 9 and 10 be found allowable, claims 11 and 18, respectively, will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir.

Art Unit: 1722

1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

8. Claims 9-12, 14-16 and 18 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 9 and 10 of copending Application No. 10/507,413 in view of Bagley (U.S. Patent 3,790,654), Inoue et al. (U.S. Patent 4,834,640) and Cocchetto et al. (U.S. Patent 5,219,509); and further in view of either Comstock (U.S. Patent 1,973,428) or Japanese reference (2000-326318).

Claims 9 and 10 of copending Application No. 10/507,413 disclose a die for forming a honeycomb body including a plurality of cell blocks defined by a plurality of groovy slits, a plurality of back holes (input ports), each hole being communicatively connected with a slit, and the die being made of a cemented carbide material having wear resistance, the cemented carbide material being formed by compacting, followed by sintering at high temperature, metal carbide powder of transition metal element series with an iron group metal binder.

Bagley (U.S. Patent 3,790,654), Inoue et al. (U.S. Patent 4,834,640), Cocchetto et al. (U.S. Patent 5,219,509), Comstock (U.S. Patent 1,973,428) and Japanese reference (2000-326318) are applied as above.

Claims 9 and 10 of copending Application No. 10/507,413 do not disclose a connection area ratio of the back hole and the cell block being 35 to 65% or a cell block height of the die being 2 to 5 mm.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the die of claims 9 and 10 of copending Application No. 10/507,413 with a connection area ratio of the back hole and the cell block of 35 to 65% because such a dimensional relationship would have been found due to routine experimentation in finding the operable or optimum dimensions of the die in view of the teachings of Bagley (U.S. Patent 3,790,654) to control the flow of the material to be extruded in view of the physical properties of the material while still maintaining the required strength and rigidity of the die to withstand extrusion pressures without failure or deleterious deformation. Furthermore, such a dimensional relationship would still enable the die of claims 9 and 10 of copending Application No. 10/507,413 to form a honeycomb body. Where the only difference between the prior art and the claims is a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device is not patentably distinct from the prior art device, In Gardner v. TEC Systems, Inc., 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984). It would have been further obvious to an artisan of ordinary skill to modify the cell block height (slit height) of the die of claims 9 and 10 of copending Application No. 10/507,413 to be 3.81 mm because such a height is well known and

Art Unit: 1722

conventional in the art as disclosed by Bagley (U.S. Patent 3,790,654) and would provide a configuration for the cell block height known in the art to be operable.

Claims 9 and 10 of copending Application No. 10/507,413 do not disclose a back holding plate; or the die, holding plate and back holding being made of cemented carbide, as recited by the instant claims.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to further modify the die with a holding plate made of cemented carbide because such holding plates are well known and conventional in the art for fixing a profile and size of the honeycomb body extruded from the die and for high wear resistance, as disclosed by Inoue et al. (U.S. Patent 4,834,640) and Bagley (U.S. Patent 3,790,654), and to further modify the die with a back holding plate because such a modification would control the amount of extrusion material flowing into the back holes as disclosed by Cocchetto et al. (U.S. Patent 5,219,509). Furthermore, it would have been further obvious to an artisan of ordinary skill to make the die and the portions of the holding plate and the back holding plate which contact the extrusion material to be made from the specific cemented carbide materials (i.e., TiC or TaC) disclosed by either Comstock (U.S. Patent 1,973,428) or Japanese reference (2000-326318) because Japanese reference (2000-326318) discloses such materials are well known and conventional in the honeycomb die art, because Bagley (U.S. Patent 3,790,654) discloses that a die plate and a holding plate can be made of cemented carbides (i.e., tungsten carbide), because Inoue et al. (U.S. Patent 4,834,640) discloses that a holding plate can be made of cemented carbides, and/or because cemented carbides are well

Art Unit: 1722

known materials in the art for providing high wear resistance, as disclosed by Inoue et al. (U.S. Patent 4,834,640) who teach that portions which contact extrusion material can be made of cemented carbide for high wear resistance.

As to the limitation of "for a raw material containing SiC", such a limitation relates to the intended use of the claimed apparatus and has no patentable weight. A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. Ex parte Masham, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987); see MPEP 2114.

"Expressions relating the apparatus to contents thereof during an intended operation are of no significance in determining patentability of the apparatus claim." Ex parte Thibault, 164 USPQ 666, 667 (Bd. App. 1969). Furthermore, "[i]nclusion of material or article worked upon by a structure being claimed does not impart patentability to the claims." In re Young, 75 F.2d 996, 25 USPQ 69 (CCPA 1935) (as restated in In re Otto, 312 F.2d 937, 136 USPQ 458, 459 (CCPA 1963)). See MPEP 2115.

This is a provisional obviousness-type double patenting rejection.

Response to Arguments

9. Applicant's arguments with respect to the instant claims have been considered but are moot in view of the new ground(s) of rejection.

Applicants argue that Bagley fails to teach or disclose the holding plate or the back holding plate being made of the metal carbide powder of transition metal element series including any one of TaC and TiC. Masaaki, Inoue, Comstock and Cocchetto fail

Art Unit: 1722

to cure the deficiencies of Bagley. The examiner respectfully disagrees. It is well known in the art to use cemented carbides for high wear resistance, as mentioned above. Comstock discloses that TaC and TiC are well known cemented carbides, as mentioned above. Furthermore, Japanese reference (2000-326318) discloses honeycomb dies using TaC and TiC, as mentioned above.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Leyson whose telephone number is (571) 272-5061. The examiner can normally be reached on M-F 9AM-5:30PM.

Art Unit: 1722

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gupta Yogendra can be reached on (571) 272-1316. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Robert Davis/
Primary Examiner
Art Unit 1722
September 13, 2007



JL